SC000500 Unit Outline

Introduction to Scientific Observation and Classification

Unit 5: Introduction to Recycling

Abstract

This earth science unit focuses on what children can do within their homes and school to create habits regarding recycling. Children learn what trash is, the effects of littering, and inappropriate waste disposal. They classify litter according to material type, such as paper, plastic, metal, and glass. Children explore what happens to trash after it leaves their home or school. They are introduced to the purpose of landfills. In addition to recycle, children are introduced to the conservation concepts of reduce and reuse.

Lesson 1 – Natural Resource or Manufactured Material (SC000501)
This lesson is an introduction to recycling. In this lesson, children discover the difference between natural resources and manufactured materials. They tour the school grounds and classify objects in their environment.

Lesson 2 – Pollution (SC000502)
This lesson focuses on the effect humans have on the environment. Children are introduced to the types of pollution: land, water, and air. They are introduced to the concepts of littering and trash. The children walk around the school grounds and pick up litter.

Lesson 3 – Landfill (SC000503)
In this lesson, the children look at trash and the path it follows once it leaves their home and school. They discuss what a landfill is and make a class landfill to determine which materials take longer to break down at a landfill.

Lesson 4 – Types of Waste (SC000504)
This lesson focuses on the types of trash. Children classify the trash by the type of material. They compare the types of trash found on the school grounds.

Lesson 5 – Recycling (SC000505)
This lesson introduces the concept of society's role in taking care of the Earth. The children are introduced to the term recycle. They learn how recycling helps to cut back on the amount of trash going to the landfills.

Lesson 6 – Comparing Packages (SC000506)
This lesson is about reducing waste. Children use problem-solving skills to discover ways that they can reduce waste. They look closely at the amount of packaging around a product and the amount of waste generated.

Lesson 7 – Trash to Treasure (SC000507)
This lesson is about reusing materials. The children look at ways they can reuse waste. The children create a creature from waste materials for a classroom zoo. They decorate and reuse brown paper grocery bags.

Lesson 8 – Recycling in Action (SC000508)
In this lesson, the children explore recycling waste. They learn about other recycled paper products and make recycled paper. Children visit a recycling center.

Lesson 9 – School Waste (SC000509)
In this lesson children look carefully at their classroom and school environment to identify ways the school is creating waste. The children come up with ways that they can manage waste at school that involves reducing, reusing, and recycling. The children interview a custodian at their school to learn about how the school participates in recycling programs. They also discuss ways the school is being wasteful and design programs to reduce the waste. The children implement programs that they design.

Lesson 10 – Recycling T-shirt (SC000510)
This lesson is a culminating activity where the children use their knowledge of recycling to design a T-shirt that promotes either reducing, reusing, or recycling.

Michigan Science Benchmarks

Develop solutions to problems through reasoning, observation, and investigations (I.1.E.2).
Key Concepts: gather information, ask questions, think.

Real-World Contexts: Any in the sections on Using Scientific Knowledge.

Develop an awareness of and sensitivity to the natural world (II.1.E.4).
Key Concepts: Appreciation of the balance of nature and the effects organisms have on each other, including the effects humans have on the natural world.

Real-World Contexts: Any in the sections on Using Scientific Knowledge appropriate to elementary school.

Demonstrate ways to conserve natural resources and reduce pollution through reduction, reuse and recycling of manufactured materials (V.1.E.6).
Key Concepts: Materials that can be recycled—paper, metal, glass, plastic. Conservation and anti-pollution activities—reduce, reuse, recycle.

Real-World Contexts: Collections of recyclable materials, plans for recycling at home and school, composting, ways of reusing or reducing the use of paper.

National Science Education Standards

Through the completion of the activities in this unit, students and teachers can achieve the following National Science Education Standards:
Science in Personal and Social Perspectives; CONTENT STANDARD F: As a result of activities in grades K-4, all students should develop an understanding of:

- Personal Health
- Characteristics and changes in populations
- Types of resources
- Changes in environments
- Science and technology in local challenges.